



EMT BASIC TREATMENT PROTOCOLS

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<u>TABLE OF CONTENTS</u>	<u>PG</u>
Introduction	6
Goals of Pre-Hospital Care	6
Death Pronouncement	6,7
Medical Control of A.L.S. at the Scene	7
Communications	
General Procedure	7,8
Basic Radio Procedures	7
Communication Guidelines	7
Communications Systems Failures	8
Intermediary's Responsibility	8
Body Substance Isolation	8
Transportation	9
Interfacility Patient Transportation	9,10
At Scene Transfer of Patient Care	10
Trapped or Impaled Patient	10
Refusal of Treatment or Transport	10,11
Field Triage Guidelines	11,12
Multiple Casualty Incidents (M.C.I.)	12,13,14
Pneumatic Anti-Shock Garment (P.A.S.G.) Guidelines	14,15
Assessment guidelines	
General Assessment and Treatment Approach	15
History – Initial Assessment - Definitions	
Airway Treatment	16
Breathing Treatment	16
Circulation Treatment	16
Vital Signs	16

Neurological Assessment	17,18
Glasgow Coma Scale/Special Notes	18,19
General: Focused History/Physical Exam or Rapid Assessment	
Obstructed Airway	19
Altered Level of consciousness	19
Seizures	20
Cardiogenic Shock	20
Chest Pain	20
Difficulty Breathing – General	21
Difficulty Breathing – Anaphylaxis	21
Difficulty Breathing – Asthma	22
Difficulty Breathing – COPD	22
Difficulty Breathing – CHF	23
Hypotension – Non traumatic	23
Hypertensive Crisis	23
Trauma Assessment: Adult	
General	24
Abdominal Pain	24
Burns	25
Chest Injury	25
Fractures, Dislocations	26
Head Injury	26
Hypovolemic Shock	27
External Hemorrhage, Amputation	28
Spinal Injury	28
Near Drowning	29
Poisoning/overdose	29
Environmental/Heat Exhaustion	30
Environmental/Heat	30
Environmental/Hypothermia	30
Obstetrics:	
Historical Assessment	31
Delivery	33

Complications of Delivery-	33
Nuchal Cord	33
Prolapsed Cord	33
Rupture of membranes	34
Fetal distress	34
Vaginal bleeding	34
Trauma in the pregnant patient	34
Neonatal resuscitation	35
Pediatric/Neonatal	36
Airway	36
Breathing	36
Circulation	36
Temperature	36
Glucose	36
LOC	36
Croup	37
Epiglottitis	37
Suspicion of child abuse	37
Reactive airway/asthma	37
Alaphylaxis	37
Seizures	37
Altered level of consciousness	38
Shock	38
Pediatric/Neonatal Standards	38
Treatment Algorithm: Adult	
DOA	39
DNR	40
FMC Trauma Designation	41
Abdominal pain: Non-traumatic	42
Airway Compromise	43
Obstructed Airway	44
Allergic Reaction	45
Altered Level of Consciousness	46
Anaphylaxis	47
Cardiopulmonary Arrest	48
Bradycardia, Unstable	49
Chest Pain, suggestive of cardio origin	50
Cerebral Vascular Accident – stroke	51
Envenomation - Arachnids	52
Envenomation - Snake bite	53
Environmental – Heat related	54
Environmental – Hypothermia	55
Hypertensive Crisis	56
Hypotension – Non-traumatic	57

Poisoning / Overdose	58
Respiratory Arrest or insufficiency – bronchospasm	59
Respiratory Arrest or insufficiency- pulmonary edema	60
Seizure	61
Submersion incident – Category 1	62
Trauma – Burns	63
Trauma – Extremity Injury	64
Trauma – Head Injury with ALOC	65
Trauma – Multi-system	66
Trauma – Spinal Injury	67
Obstetrics – Complication of delivery-abnormal presentations	68
Obstetrics – Complication of delivery – postpartum hemorrhage	69
Obstetrics – Complications of pregnancy	70 & 71
Obstetrics – Delivery	72
Pediatric	
Abdominal pain; non-traumatic	73
Airway Compromise	74
Obstructed Airway	75
Allergic Reaction	76
Altered Level of Consciousness	77
Anaphylaxis	78
Respiratory Arrest or Insufficiency – Brochospasm	79
Croup (Laryngotracheobronchitis)	80
Envenomation – Arachnids	81
Envenomation – Snake bites	82
Environmental – Heat Related	83
Environmental – Hypothermia	84
Epiglottitis	85
Hypotension / Shock, non-traumatic	86
Neonatal resuscitation	87
Cardiopulmonary Arrest	88
Poisoning / Overdose	89
Seizure of unknown etiology	90
Submersion incident – category 1	91
Submersion incident – category 2	92
Trauma – Burns	93
Trauma – Extremity injury	94
Trauma – Head injury with ALOC	95
Trauma – Multi-system	96
Trauma – Spinal injury	97
Appendix A- Arizona Trauma Patient Identification & Field Triage	98
Appendix B- EMT-B Drug list	99
Appendix C- Prehospital Standard Infusion Mixtures	100
Appendix D-Scores and Scales-Thrombolytic Questionnaire	101
Los Angeles Prehospital Stoke Scale	102
APGAR Chart	103
Thrombolytic Questionnaire	104

INTRODUCTION

These field treatment protocols are the regional standards of care for BLS pre-hospital care providers in the Northern Arizona Region. Regional protocol authority is provided for in Arizona Administrative Code.

The purpose of these protocols is to provide a uniform treatment standard throughout the E.M.S. region. They are directed towards EMT Basics of Arizona Department of Health Services (A.D.H.S) certified pre-hospital care providers.

GOALS OF PRE-HOSPITAL CARE

The first goal of pre-hospital care is on-scene recognition and treatment of those conditions in which the delay of treatment might increase morbidity and mortality. Examples: airway management, control of external hemorrhage, treatment of shock, C-spine control, C.P.R. reversal of hypoglycemia, Epinephrine for anaphylaxis. Once the patient enters the E.M.S. system, we would like to initiate meaningful interventions immediately.

The second goal of pre-hospital care is to provide entry into the E.M.S. system, initial stabilization, and safe transport to an emergency medical facility for those patients whose conditions are not immediately life or limb threatening.

The third goal is rapid transport, with only minimal on-scene delay, for those patients whose conditions require immediate hospital stabilization. Examples: gun shot wound, chest or stab wound, severe pulmonary edema (medical), deteriorating neuro status, premature infant.

The fourth goal is on-scene triage in multiple casualty incidents.

To achieve the above stated goals of pre-hospital care, the EMT Basic must be skilled in patient assessment. He or she needs to be able to recognize those conditions where on-scene intervention is necessary. Assessment is the tool to accomplish this goal.

Assessment must be rapid, succinct and goal directed. Main emphasis is on the primary survey. Secondary survey should not delay either life saving interventions or transport.

Interventions identified in the assessment should be acted on immediately. If an airway problem exists, deal with it. If a sucking chest wound is present, treat it. If a patient is having an MI, give oxygen and prevent or treat as needed. Do not, in any of these or similar situations keep going with your assessment once you have recognized the needed intervention. Assessment is a tool to identify a need for intervention. It is a means to an end. The end is life or limb saving interventions.

DEATH PRONOUNCEMENT

If one decides not to give C.P.R. to a pulseless, apneic patient, one is essentially presuming that patient to be dead. This decision is to be made with medical direction from your Base Hospital

Physician whenever possible. C.P.R. has a low yield in trauma victims in cardiorespiratory arrest. Nevertheless, it may be warranted if it does not divert equipment and personnel from more salvageable victims. Basic life support procedures instituted at the scene may be inappropriate when one is dealing with multiple victims. Please note that the pulseless, apneic, patient where transport to any kind of Advanced Cardiac Life Support will be measured in hours or days instead of minutes, requires a realistic assessment of likely patient outcome after lengthy C.P.R. As a general rule of thumb, patients who have not responded to 30 minutes of C.P.R., where A.L.S. capability is not imminently available, are non-viable.

COMMUNICATIONS

Medical control contact on B.L.S. calls is at the Base Station's discretion. Regardless of the level of provider on scene, with critical patients, radio or phone communication should be made after the initial succinct primary survey, and after emergency standing orders are carried out.

EMT-B'S without Medical Direction should follow these Treatment Protocols for Northern Arizona. There will not be a requirement to patch to the Base Station. However, EMT-B's may patch to the receiving facility as needed.

BASIC RADIO PROCEDURES

All communications must include the following information:

1. EMSCOM Vehicle I.D.
2. Medic name & certification level
3. Number of patients
4. Chief complaint(s)
5. History and objective finding(s)
6. Treatment rendered & response to treatment
7. State the orders you are requesting
8. E.T.A. and destination

COMMUNICATION GUIDELINES

1. Allow for a two-second delay after depressing the transmit key. This allows the electronics to fully engage.
2. Stop frequently and release transmit key to insure that the base hospital has received your transmission.
3. Present information so that the listener gets an overview early (e.g. "... a 68 year old male, auto accident victim in acute respiratory distress..."). Report findings in the same order you evaluate a patient, i.e. initial assessment, vital signs, focused history and physical exam.
4. You need not list all relatively minor findings that do not affect immediate patient care decisions
5. Communicate with courtesy, brevity, and clarity.
6. Repeat all orders received back to the base hospital.

7. Remember that many people are listening to your radio communications, so avoid use of patient names and unprofessional comments.
8. Follow Arizona Department of Public Safety (A.D.P.S.) EMSCOM Operations Manual.
9. Patches on B.L.S. patients should consume a minimum amount of time and only the most pertinent information.

COMMUNICATIONS SYSTEMS FAILURES

If unable to contact the Base Station via Hospital Radio or dedicated phone lines, contact should be made with your alternate Base Station. Any situation where procedures are performed, which by these protocols require a verbal order, and such verbal order is not obtained because of failure to establish radio contact, will be reviewed individually as to their appropriateness. You must be sure clear cut indications for procedures exist. Remember, failure to contact the Base Hospital, for any reason, results in an automatic audit.

Base Hospitals shall develop plans for medical control in the event of local equipment failure. Such plans should include contingencies for radio failure, power outages, structural failures, etc.

INTERMEDIARY'S RESPONSIBILITY IN RADIO COMMUNICATION

An intermediary is an emergency department nurse or emergency department physician assistant designated by the emergency physician to provide on-line medical supervision under verbal direction and control of the physician.

1. An intermediary will participate in daily communications and recording equipment troubleshooting procedure as outlined by A.D.P.S. R.C.C. Center policy.
2. An intermediary in contact with an B.L.S. unit will ask the emergency physician to come on-line at once if requested by the B.L.S. unit.
3. The intermediary shall review and sign the First Care Encounter Form with which there has been communication and procedural contact.
4. Communications with B.L.S. providers shall be completed in a timely, organized manner.
5. When a patient is to be transported to another receiving facility, immediately communicate all pertinent patient management information to the responsible physician or nurse at the receiving facility.
6. When relaying verbal directions/orders to field units, the intermediary shall identify by name the emergency physician giving the orders transmitted.

BODY SUBSTANCE ISOLATION

All patients should be considered potentially infectious. Standard precautions should be followed in accordance with C.D.C., O.S.H.A., and base hospital guidelines.

TRANSPORTATION

The patient should go to the medical facility which best meets his medical needs. If not the closest hospital, this decision requires a verbal order. The patient's choice of hospital should be considered when such a request does not adversely effect or delay care or the operation of the transporting agencies.

If immediate hospital (medical/surgical) intervention is required, the quickest form of transport must be considered.

The patient's condition should not be made worse by the mode of transport, (e.g. consider elevation increase, bumpy roads, etc.).

Scoop and Run involves rapid initiation of transport. It should not be undertaken until simple measures of airway control are performed on scene. The classic indication of scoop and run is a penetrating wound to the chest where rapid deterioration of vital signs can be expected due to massive internal bleeding.

The implementation of field procedures should not inappropriately delay the transport of critical patients.

Problems regarding patient transportation can be avoided by appropriate communication with the base hospital.

INTERFACILITY PATIENT TRANSPORTATION

Interhospital patient transfers on an emergency basis are commonly initiated when definitive or therapeutic needs of a patient are beyond the capacity of one hospital. Any change in patient status requires the personnel to contact their base hospital, not the receiving facility for further orders.

1. All patients should be stabilized before transfer.
2. E.M.S. personnel must receive an adequate summary of the patient's condition, current treatment, possible complications, and other pertinent information.
3. The EMT-B, when acting for an agency with a specified Base Station continues to operate under control of that Base Station. Any orders given to such EMT-B on interfacility transfers must be in accordance with their protocols and must be reviewed and approved by their medical control as the protocol specifies prior to transport.
4. Transfer papers, summary, lab work, X-rays, etc., should be given to the transporting E.M.S. personnel, not the family or friends.
5. The receiving hospital physician must be contacted by the transferring physician and agree to accept the patient prior to the transfer.
6. The level of emergency personnel must be appropriate to the treatment needed or anticipated during transfer.
7. Patients with intravenous infusion must be transported by the appropriate level of

personnel. If a patient is receiving medication outside the scope of the transferring E.M.T. Basic, that patient must be accompanied by a Paramedic, R.N. or Physician as indicated by the patient's condition.

AT SCENE TRANSFER OF CARE

It is common for a variety of certified personnel with different skill levels to be providing care at the scene at one time. As stated in the General Principle statement, the fact that there is a higher skill level provider at the scene does not absolve each team member in patient care responsibilities.

Once patient care is completed, and transportation of the patient is necessary, a few rules exist.

1. If care of the patient is transferred to another provider (that did not initiate the care), a report concerning patient scene, status, and care must be given to the provider when he or she accepts the patient.
2. If there is a question as to which E.M.S. personnel member should transport the patient (E.M.T., I.E.M.T., Paramedic), the base hospital physician should be contacted and given the information to make an informed decision.
3. Upon transfer of patient care, pertinent field information should be relayed without unnecessarily delaying transport.
4. Refer to the Emergency Interfacility Patient Transportation and Doctor at Scene Protocols for further information.

TRAPPED OR IMPALED PATIENT

If you arrive at the scene to find a trapped or impaled patient who will take a significant time to extricate, or the impaled object cannot be easily cut, stabilize A.B.C.'s as much as possible and contact your Base Station. After explaining the situation, it may be appropriate for a physician from the hospital to come to the scene in case of the need for A.L.S. beyond your skills.

REFUSAL OF TREATMENT AND/OR TRANSPORT

Once committed to the care of a patient, which may include identifying the need (without actually examining the patient), all health care professionals should follow up and do the utmost they can for the patient.

The following statements are points to consider when a patient is refusing treatment and/or transport.

1. Good medical judgement should always prevail. If an error is made, it should be made in favor of proper treatment for the patient.
2. Your attitude must remain professional, even in the face of the most hostile patient.

3. Your communication skills are the most important tool you have. If the patient is not responding to you in a positive manner, consider changing places with your partner and letting him/her try.
4. If in your opinion a patient who is refusing treatment should receive medical attention, never leave the patient without contacting your base hospital and discussing the situation with the physician on duty. Use all your resources. Consider requesting the mental health resources in your community to assist your efforts or possibly commit the patient.
5. The patient has rights. You can only consider transporting the patient against his/her will if you can determine that the patient is unable to make an informed decision, such as a minor whose parent or guardian is not present or a person who cannot understand why treatment is necessary or the risks of not accepting treatment. Such factors as mental illness, serious injury or illness, drugs and alcohol are examples of factors which could impair a person's ability to understand the nature and consequences of accepting or rejecting medical help. Have the police at the scene assist you.
6. If the patient refuses treatment, against all advice, have the patient sign a refusal of treatment form. The refusal of treatment form should have the information concerning your assessment of the patient and the possible problems that could occur from refusing treatment directly on it. Make sure it is dated.
7. For the patient who needs medical care, but refuses, good documentation - history, physical, and refusal of service forms - is extremely important and may protect the medical team should legal questions arise. The following information should be documented.
 - a. Patient name and age
 - b. Chief Complaint
 - c. Vital signs
 - d. History of present illness
 - e. Description of mental status
 - f. Physical assessment and (recommended care)
 - g. Reason patient is refusing care
 - h. Name of patch physician if patch is possible
 - i. Names and signatures of witnesses, patient, other agency personnel, if possible
 - j. Time patient left & patient condition
 - k. Brief statement as to why any or all of the above information is unobtainable
 - l. Statement verifying risk of refusal was explained to patient and the patient understood these risks

FIELD TRIAGE GUIDELINES

Due to the rural and isolated nature of much of this region, coupled with the long distances between communities, the emergency patient is usually taken to the nearest Emergency Receiving Facility.

Exceptions may occur when:

1. A rational and oriented patient specifically requests transport to another facility, and the E.M.S. personnel deem it feasible to do so. This requires a verbal order. Specific agency policy may affect the decision.
2. The nature of the patient's illness or injury requires services not available at the nearest facility. The decision to bypass the nearest facility should be substantiated during direct communication with the responsible medical control physician at the base hospital.
3. Multiple victims have been identified by prehospital personnel and possible overloading of the nearest hospital's resources may prompt directing transport of a victim(s) directly to another facility.

Ordinarily, priority will be given to the most critical patients. However, when the number of patients exceeds the E.M.S. resources immediately available, then priority must be given to more salvageable patients. Under these circumstances, patients who are apparently non-salvageable, e.g. trauma codes and massive head injuries, may be relegated to a low priority.

TRIAGE PRIORITIES

1. Immediate (to be transported first and treated immediately).
 - a. **R**espiration-over 30
 - b. **P**ulse-No Radial Pulse
 - c. **M**ental Status-Unable To Follow Simple Commands
2. Delayed (transportation and treatment may be deferred).
 - a. other patients unable to walk on their own
3. Minor (to be transported or treated last)
 - a. Patients that can walk on their own.
4. Dead/Dying
 - a. No Resp. After Head Tilt/OPA

MULTIPLE CASUALTY INCIDENTS (M.C.I.)

If an agency has no formalized (written and implemented) M.C.I. Plan the following will briefly outline steps to be taken in the event of an M.C.I.

Definition of an M.C.I.:

1. Five (5) or more critically (Immediate) injured patients.

2. An incident that exceeds or potentially exceeds the E.M.S. resources available.

These are based upon common triage protocols and the use of the nationally recognized Incident Command System (I.C.S.). All agencies are expected to use the I.C.S. to allow agencies to work with a common system to mitigate incidents. This outline is not intended to replace well established local plans; rather, it offers a guideline for those areas in which no organized plan exists.

On arrival at an M.C.I. - in order of priority:

1. Call for additional resources:
 - a. From your agency;
 - b. Consider:
 - (1) Aircraft assistance
 - (2) Mutual aid
 - (3) Specialized needs (i.e. Haz/Mat, School buses, etc.).
2. Establish Command
3. "Walk Through" counting patients
4. Notify the base hospital that you have an M.C.I.
 - a. Number of patients
 - b. Have base hospital notify regional hospitals.
 - c. Notify law enforcement agencies.
 - d. You will update information as it becomes available.
5. When additional resources become available:
 - a. Assign per I.C.S. (i.e. Triage, Transportation, Staging, Safety, etc.).
 - b. Triage patients
 - * Immediate(Red)= Most critical
 - * Delayed (Yellow) = Moderately critical
 - * Minor (Green) = Least critical
 - * Dead/Dying (Black) = Obviously dead or determined to be non- salvageable with resources available.
 - c. Provide for scene safety and security:
 - * Safety officer/sector* Law enforcement
6. Set up assembly areas for Immediate, Minor, and Delayed:
 - a. Mark areas with flags or tape with color designation for ease of locating proper areas.
 - b. Move patients to proper assembly area.
 - c. Leave Dead/Dying victims where they are, if they are obviously dead and not in the way; use resources to help those patients who are viable.
 - d. Treat patients in assembly area.
7. Organize transportation:
 - a. In order of priority
 - b. Transportation officer to notify hospitals (via EMSCOM) of:
 - (1) Number of patients going to their facility.

- (2) Priority of patients.
- (3) Estimated time of arrival (E.T.A.)
- (4) Any supplies that returning units need to bring to the scene on their return, so the hospital can get them assembled for quick departure.
- 8. Provide for Rescuer Assistance/Relief if incidents of long duration ("Rehab sector").
 - a. Arrange for food and water.
 - b. Rest area away from scene, if possible. (Consider house, store, etc.)
 - c. Rotate personnel through "Rehab Sector".
- 9. At conclusion of incident:
 - a. Restock units
 - b. Consider post incident debriefing for all Rescuers and Police.
 - (1) Within 12 hours post-incident.
 - (2) Follow-up within 72 hours.
 - (3) Offer individual counseling if needed/available.

Note: The above does not offer a detailed, in-depth study of M.C.I. response or the I.C.S. system. Further education in these areas should be pursued as space here will not allow total coverage of these areas. Practical drills and daily use of the I.C.S. on all multicasualty incidents will increase proficiency in these areas.

PNEUMATIC ANTI-SHOCK GARMENT (P.A.S.G.)

The therapy of choice in situations of hypovolemia is to stop volume loss and initiate volume replacement. Use of the P.A.S.G. to stabilize pelvic and lower extremity injuries is an accepted practice. Indications for use of the P.A.S.G. vary from base station to base station, but, in general, the following apply:

1. Systolic BP of 90 or less with accompanying symptoms and signs of shock when the presumed cause is hypovolemia and fluid therapy is not able to be established or is not effective.
2. For stabilization of presumed pelvis and lower extremity fractures.
3. Consider prophylactic application (without inflation) in situations where the development of hypovolemic shock is a potential (i.e. multiple trauma).

Use of the P.A.S.G. is a standing order, but consultation with Medical Control would be desirable.

Contra-indications to the use of the P.A.S.G. are:

1. Pulmonary edema
2. Penetrating wound of the chest.

Conditions requiring limited use:

1. Pregnant patients (inflate leg compartments only).
2. Patient with an impaled object (do not inflate section over object).
3. Patient with open wound to abdomen with evisceration or organs visible (inflate leg compartments only).

4. Patient with compromised breathing for any reason (don't exacerbate by inflating abdominal compartment).

NOTE: A P.A.S.G. inflated at a low altitude or in a cold environment will increase pressure when flown or moved to a higher altitude or warmer environment, and vice versa. You must monitor P.A.S.G. pressure and patient BP constantly! Keep PASG pump readily available with patient.

DEFLATION: When the P.A.S.G. has been inflated, they may be deflated only under a physician's direction. **SUDDEN DEFLATION MAY RESULT IN A PATIENT'S DEATH!**

MEDICAL-GENERAL

Although there are many things that may be medically affecting your patient, there are a limited number of supporting treatments you have to offer. Do not let the gathering of information distract you from the management of life-threatening problems.

Remember, however that you may be able to gather information from bystanders at the scene, from the environment, and perhaps even from the patient that may not be available to the physician later on. Your partner can often be engaged in collecting this kind of information during the secondary examination.

HISTORY

1. Chief complaint (questioning to include, when appropriate):
 - a. Onset
 - b. Provocation
 - c. Quality
 - d. Radiation
 - e. Severity
 - f. Time
2. Associated complaints: question as for Chief complaint.
3. Relevant past medical history
4. Allergies
5. Medications and drugs: chronic
6. Survey of surroundings for evidence of drug abuse, mental functioning, family problems.

INITIAL ASSESSMENT

Primary interventions should always be made

Assess: Rate, apparent tidal volume, effort, ability to speak, symmetrical movement, breath sounds, accessory muscle use.

*Use of supplemental oxygen

Appropriate use of supplemental oxygen requires thought and consideration as does the use of any medication.

The flow rate and method of administration vary with the situation.

Critical patients in extremis require 100 % oxygen i.e. mask with oxygen reservoir inflated. Otherwise oxygen administration should be appropriate to patients needs. Use of the pulse oximeter has greatly simplified the assessment of patient oxygenation and is a standard of care. Less critical patients should be provided with supplemental oxygen to maintain saturation of 95% - 98%. The only exception to this is the patient with chronic obstructive lung disease; in this patient target saturation is 90% - 92%.

Realize that oxygenation and ventilation are separate but interdependent issues. Oxygenation may be assessed as adequate with a pulse oximeter, but the only way to assess ventilation as adequate is by clinical means, i.e. rate, tidal volume, air movement.

CIRCULATION:

Assess pulse presence, location, quality, and capillary refill; assess loss from hemorrhage, skin color and temperature, and level of consciousness.

VITAL SIGNS

1. Obtain first quantitative set of vitals within five minutes if practical (pulse, blood pressure, respiratory rate, pulse oximetry if available)
2. Repeat according to patient's condition. At least one more set prior to transport or enroute.
3. Note neurological status: monitor level of consciousness particularly. See Neuro Assessment

GENERAL: FOCUSED HISTORY/PHYSICAL EXAM OR RAPID ASSESSMENT DETAILED PHYSICAL EXAM

Although individuals may vary the order of the survey, it should always be systematic whether the patient complaint is medical or traumatic. Remember that breath sounds should be assessed on every patient with potential cardiac, altered level of consciousness, major trauma, or any sort of difficulty breathing; just about anything not obviously minor.

The four components of physical examination are: inspection, auscultation, palpation, and occasionally, percussion.

A poor assessment has the potential to miss significant signs and symptoms; a complete assessment will rarely cause harm or significant discomfort, unless it delays transport of the severely injured patient.

The head-toe assessment should include these areas whenever merited according to the complaint/injuries of the patient, and the situation at hand.

1. Complete set of vital signs.
2. Head:
 - a) Inspect and palpate scalp, face, ears, nose, eyes.
 - b) Check pupils for size, equality, reaction to light, accommodation.
3. Neck:
 - a) Inspect and palpate location of trachea.
 - b) Check jugular veins.
 - c) Palpate cervical spine.
4. Chest/Back:
 - a) Inspect, palpate, auscultate chest and back.
5. Abdomen/Pelvis/Buttocks:
 - a) Inspect, palpate, auscultate abdomen.
 - b) Perform 3 point pelvis check.
6. Lower Extremities
 - a) Inspect and palpate both legs and feet.
 - b) Check circulation, sensation, and motor function in both feet.
7. Upper Extremities:
 - a) Inspect and palpate both arms and hands.
 - b) Check circulation, sensation, and motor function in both hands.
8. Neuro:
 - a) Glasgow Coma Scale
9. Pulse Oximetry.
10. Glucose Determination.
11. History

NEUROLOGICAL ASSESSMENT

Management of patients with head injury or neurological illness depends on careful assessment of neurological function. Changes in neurologic status are particularly important. The first observation of neurological status in the field provides the basis for monitoring sequential changes. It is, therefore, important that the first responder accurately observe and record neurological assessment, using parameters which will be followed throughout the patient's hospital course.

The Glasgow Coma Scale has gained acceptance as one method of monitoring patients with head injury. It is readily learned, has little observer-to-observer variability, and accurately reflects

2. Size and reactivity of pupils.

D. Movement:

Observe whether all four extremities move equally well.

E. Sensation (if patient awake):

Observe for absent, abnormal or normal sensation at different levels if cord injury is suspected.

SPECIAL NOTES:

A. Sensory and motor exam **must** be documented before and after moving patient with suspected spinal injury.

B. Note what stimulus is being used when recording responses. Applied noxious stimuli must be adequate to the task but not excessive. Initial mild stimuli can include light pinch, dull pinprick, or light sternal rub. If these are unsuccessful at eliciting a pain response, pressure with dull object to base of nailbed, stronger pinch (particularly in axilla), or stronger rub will be necessary to clearly define your patient's best motor response.

MEDICAL: OBSTRUCTED AIRWAY

General Principle:

If you can't get air in then all is for naught!

MEDICAL: ALTERED LEVEL OF CONSCIOUSNESS

Be particularly attentive to airway compromise, or loss of the airway. Difficulty with secretions and vomiting are common. Hypoglycemia may be present and may appear as focal neurological deficit or coma (stroke-like picture) in elderly persons.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Level of consciousness and neurological status including pupils.
2. Signs of trauma: head, body
3. Odor of breath
4. Needle tracks
5. Medical alert tag
6. Incontinence

7. Present history: onset and progression of present state, and antecedent symptoms such as headaches, seizures, confusion, etc., trauma clues.
Past history: previous medical or psychiatric problems
8. Surroundings: Check for pill bottles, syringes, etc. and bring with patient. Note odor in house.

SEIZURES

Emergency personnel are often called to care for an individual with a known or usually controlled seizure disorder. If they are conscious and competent to make decisions, they may elect not to be transported. Always document your assessment of a normal level of consciousness, stable vital signs, and the absence of other injuries. Consult with your medical control for refusal.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Obtain description of seizure activity if possible: duration? focal or grand mal? Interval between seizures, if more than one?
2. Establish likely cause of seizure, acute or chronic.
 - a. Idiopathic
 - b. Stroke
 - c. Head injury
 - d. Hypoxemia-often cause by dysrhythmias in elderly patients.
 - e. Withdrawal-drugs or alcohol
 - f. Diabetes (Hypoglycemia)
 - g. Fever
 - h. Other?

CARDIOGENIC SHOCK

Differential Features:

- A. Setting: Acute M.I., chest trauma (particularly blunt).
- B. Findings:
 1. Hypotension
 2. Signs and symptoms of CHF may also be present.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Establish history of event and rule out: hypovolemia, tension pneumothorax, cardiac tamponade.
2. Secondary: include evidence of hypoperfusion and pulmonary edema such as wet rales, peripheral edema, JVD.

CHEST PAIN

ACLS should be accessed when available. Rapid transport is indicated if MI or other serious cardiac condition is suspected. Look for conditions where your skills can make a difference.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

- A. Pertinent history: past medical history, onset, related symptoms (dizziness, nausea, palpitations, syncope, dyspnea, radiation, and diaphoresis), allergies, medications.
- B. Physical exam: level of consciousness, signs of hypoperfusion, heart failure (lung sounds, edema).

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

- 1. Level of consciousness.
- 2. Note any signs of respiratory distress: nasal flaring, intercostal retractions. If you have trouble assessing tidal volume, then the patient needs assistance. Lung sounds: clear, wet, wheezing, equality?
- 3. Number of words in sentence?
- 4. Patient position. Does lying down make breathing worse?
- 5. Cyanosis
- 6. Signs and symptoms of upper airway obstruction, i.e. stridor.
- 7. History of event: Onset-gradual or abrupt? Pain-is it continuous or intermittent? Cough-productive or dry? Trauma? Drugs?
- 8. Is the patient strongly allergic to anything?
- 9. Has he been bitten or stung by anything?

ANAPHYLAXIS

Specific Assessment:

- 1. Does the patient know what happened or what the allergen is?
- 2. Is the patient dyspneic, sneezing, wheezing, coughing, or complaining of chest tightness?
- 3. Is there evidence of urticaria, facial edema, or itching?
- 4. Is the patient complaining of abdominal cramps, nausea, vomiting, or diarrhea?
- 5. Evidence of tachycardia or hypotension?

ASTHMA

Asthma is a narrowing of the airways or bronchioles in reaction to numerous stimuli. It is both potentially fatal and usually reversible. The stimuli may be exercise, an inhaled irritant, an infection, emotional stress, or cold air.

The patient usually has a history of allergies, will be found sitting up and utilizing accessory muscles to breathe, and will be found to have a hyperinflated chest. Wheezing is pathognomonic, but realize that a tiring asthmatic may not move enough air to wheeze.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Level of consciousness: altered L.O.C = high flow oxygen. Consider respiratory assist.
2. History of event.
3. Can the patient speak in full sentences?
4. Lung sounds: wheezes, hyperresonant chest, use of accessory muscles to breath?

COPD

Chronic Obstructive Pulmonary Disease (COPD) is a diffuse obstruction to air flow within the lungs. It is most common in adult smokers and takes the form of either chronic bronchitis (excessive mucus production in the bronchial tree) or emphysema (distention of the alveolar walls).

The chronic bronchitic often has a productive cough, rales, wheezes, and associated right heart problems. They will often appear cyanotic, and have been referred to as "blue bloaters".

The emphysemic patient will usually not have a productive cough, not appear cyanotic, and have hyperresonant lungs. They have been referred to as "pink puffers".

Most patients will exhibit signs of both diseases and will have summoned emergency help because of decompensation due to a recent respiratory infection. Although these patients are often on hypoxic drive you must never withhold high flow oxygen if the patient is exhibiting signs of hypoxemia such as an altered level of consciousness. If they stop breathing-bag them. If they wake up from high flow oxygen-turn it down to 2 liters. If they are talking to you-2 liters is enough initially.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Level of consciousness-altered LOC-oxygen 100%
2. History of the event - hang your hat here.
3. Can the patient speak in full sentences?
4. Is the patient barrel-chested, or exhibiting a prolonged expiratory phase of exhalation (pursed lips)?

5. Lung sounds - wet or hyperresonant?
6. Cough - dry or productive?

CHF

Diagnosis should be considered in any patient with shortness of breath. However, it should be very high on the list of possibilities; particularly in elderly patients with a history of heart disease, and in dialysis patients.

The differential diagnosis in the patient with SOB is very long. Any patient with a history of cardiac disease, chest pain, or on dialysis, with physical findings that include rales in any of the lung fields should be considered a candidate for Congestive Heart Failure. Jugular venous distention and pedal edema are not specific findings.

HYPOTENSION, NON TRAUMATIC

Hypotension is defined as B/P < 90 systolic with signs and symptoms of hypoperfusion. Hypoperfusion of body organs is characterized by alterations in mental status, pallor, diaphoresis, tachypnea, tachycardia, and hemodynamic collapse. Consider: past medical history and medications (e.g. ulcers, aneurysm, alcoholism, cardiac disease); dehydration (i.e. vomiting, diarrhea, uncontrolled diabetes, fever); blood loss (i.e. GI bleeding, vaginal bleeding, ruptured ectopic pregnancy).

HYPERTENSIVE CRISIS

Remember that while untreated hypertension can shorten lifespan, most hypertension does **NOT** require immediate intervention. Acute hypertensive crisis is defined as a resting blood pressure in the 220/120-130 range, and symptoms of end organ effect i.e. altered LOC, seizures, CHF and/or chest pain.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Vital signs: include lung sounds for evidence of pulmonary edema as well as a BP on both arms
2. Medical history and medications (take medications with you if possible).
3. Neuro exam: LOC, symmetry of strength, sensation in extremities & face.
4. BP should be checked at least 3 times at 5 minute intervals to establish criteria.

TRAUMA, GENERAL

General Principles:

Trauma often presents with an obvious mechanism of injury. Nevertheless, one should remember that a less obvious medical problem, e.g. myocardial infarction, hypoglycemia, CVA, etc., may also be present.

The most obvious trauma is not necessarily the most significant. Always evaluate A.B.C.'s initially. Many trauma victims have died from simple mechanical airway obstructions while their more dramatic injuries were attended to.

Sometimes the patient must be separated from the environment (gasoline, electric lines, smoke, CO, etc.) that constitutes a major threat to victim and rescuer. This may have to take precedence over all other life support measures.

Trauma incidents often involve multiple patients. One must quickly assess the scene and determine if the resources available are adequate, or if other resources need to be activated.

Critically injured patients often need early surgical intervention. Therefore, rapid transport may be an essential part of treatment. Reasonable time on scene should be limited to extrication, immobilization, A.B.C.'s, and only necessary treatment intervention. Secondary non life saving interventions should be accomplished enroute.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Is the scene safe for personnel?
2. What is the mechanism of injury? (A quick mental reconstruction of what happened to the patient will assist you and the physician in determining what possible injuries exist.)
3. Do you have adequate resources available enroute?
4. Is the environment presenting a challenge to the patient?
5. Consider air craft assistance early. Will provide for more ALS and rapid transport.

TRAUMA: ABDOMEN

General Principles:

Abdominal injuries can be deceptive, like icebergs. Always assume the worst in a patient with traumatic abdominal injury. Remember that the diaphragm is dome-shaped; therefore, any chest injury below the nipple line may be abdominal injury, i.e. liver or spleen lacerations, etc.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Must always suspect with events that suggest possible abdominal trauma i.e. MVA, fall, etc.
2. Signs and symptoms are often subtle.

TRAUMA: BURNS

General Principle:

Do not put out the fire if the patient is still burning.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS:

1. A.B.C.'s and scene safety. Always evaluate for possible airway injury.
2. Evaluate for associated injuries i.e. traumatic injuries (C-spine, fracture, pulmonary).
3. How long ago did the burn occur?
4. What, if anything has been done so far?
5. Was the pt in a closed space with the fire, and did they lose consciousness? (Increased risk of respiratory injury and CO poisoning.)
6. Is there evidence of inhalation injury: burns around mouth or nose, soot in sputum, or hoarseness and coughing, and increased respiratory rate.
7. Using "Rule of 9's", estimate percentage of partial thickness and full thickness burns.
8. Assess for entrance and exit wound if burn electrical or lightning.
9. Assess for decontamination necessity if burn is chemical. Flush chemical burns for 20 minutes.
10. Find out if pt has cardiac, pulmonary, or other medical history that will affect burn treatment.
11. Obtain temperature of pt if hypothermia is likely. Protect from hypothermia if wet or exposed.
12. Move pt to safety and decontaminate as needed.
13. Cool burn site if small (<10%).
14. Remove jewelry.

TRAUMA: CHEST INJURY

General Principles:

Dysfunctional chest expansion is usually caused by direct blow to the chest. Nevertheless, remember that chest pain may be cardiac in origin, even in the accident setting; and that all pneumothoraces are not necessarily traumatic. Chest trauma may also involve injury of the pericardium, heart, great vessels of the thorax and abdominal organs protected by the ribs. Never delay transport when the mechanism of injury or any indication of pt instability signals potential disaster.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Is the scene safe for personnel?
2. What is the mechanism of injury?
3. What is the pt's level of consciousness? Glasgow coma scale.
4. Can the pt speak in full sentences and maintain their own airway?
5. Observe the pt's respirations, palpate thorax for instability of the ribs or spine, look for paradoxical movement, subcutaneous air.
6. Auscultate breath sounds. At minimum, listen to apices (near top of lungs anterior) and bases (2/3 of the way down pt's ribs posterior). Compare equality of sound from one side to the other.
7. Observe for or rule out (R/O):
 - a) Sucking chest wound.
 - b) Flail chest.
 - c) Pneumothorax/Hemothorax (reduced sound on affected side)
 - d) Tension pneumothorax (reduced sound, but increasing pressure and hyperresonance, or drum effect, on affected side). Progressive SOB and decreasing BP.
 - e) Cardiac tamponade or hemorrhage into pericardial sack (neck veins may fill, heart sounds may be muffled, and pulse pressure may narrow, i.e. systolic and diastolic will move together).

TRAUMA: FRACTURES, DISLOCATIONS, SPRAINS SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Assess localized swelling, discoloration, angulation, lacerations, exposed bone ends, or crepitus.
2. Loss of function, guarding, or pain.
3. Quality of distal pulses, sensations, movement.

TRAUMA: HEAD INJURY

An altered level of consciousness occurs in any significant head injury. Exact documentation of consciousness changes and other neurological changes you observe is very important. Utilize the Glasgow Come Scale at minimum. Falling blood pressure is almost never caused by a head injury. Look elsewhere. Shock and respiratory insufficiency take precedence over head injury in the multisystem trauma patient. Immobilize the spine! Remember, spine injury is always suggested by head injury.

Use caution while suctioning the airway of a head injured pt due to the potential for causing increased intracranial pressure.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Is there a level of consciousness change since the incident? Question witnesses.
2. Is there a memory loss in the pt? Was there a loss of consciousness?
3. Did the pt vomit or is he nauseated?
4. Is the pt complaining of the following symptoms: headache, dizziness, nausea, double vision, weakness in extremity(s), parasthesias (pins and needles), or is the pt demonstrating seizure activity.
5. Are alcohol or drugs present?
6. Vitals: BP and Pulse (increasing intracranial pressure = BP rising and pulse slowing. This is opposite of shock).
7. Pupil reaction and sizes.
8. Is cerebral spinal fluid present in hemorrhage from ears or nose?
9. What is score on Glasgow Coma Scale? Is it improving? Is it changing?
10. Does mechanism of injury suggest potential for serious head injury?

HYPOVOLEMIC SHOCK

Causes:

1. Blunt or penetrating trauma to chest, abdomen, pelvis, major peripheral vessels.
2. Burns.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

Symptoms: anxiety, confusion, lethargy

Signs: pallor, cool, clammy, tachypnea, "thready pulses", narrowed "pulse pressure", hypotension, tachycardia.

Specific Precautions:

- A. Vital signs in hypovolemic shock can be very misleading. You must have a high index of suspicion. Do not wait for the blood pressure to drop out before you make your diagnosis. The pulse will often give you an earlier indication. Particularly in young, previously healthy adults, the pulse and blood pressure may remain normal unless you stress the patient by sitting him up.
- B. Definitive treatment of acute hypovolemic shock from blood loss requires measures to stop bleeding as well as blood replacement. Correction of the underlying cause of the shock will require hospital treatment - **DO NOT DELAY TRANSPORT!**
- C. Shock in the face of trauma should be initially considered hypovolemic shock and treated as such.

TRAUMA: EXTERNAL HEMORRHAGE, AMPUTATION

General Principles:

Hemorrhage, or bleeding is usually characterized as arterial or venous depending on whether it is bright red and spurting, or dark red and oozing. In practice, however, most large wounds combine both.

Direct pressure is the treatment of choice for heavy bleeding, but must be effectively applied to the source of the bleed. If the bleeding is not effectively slowed, the EMT-B should reassess the location of the bleed and reapply pressure. Elevation if possible may be helpful. Use of tourniquet must be discussed with medical control.

AMPUTATED PARTS

Use only pressure necessary to stop bleeding from stump. Transport amputated part wrapped in slightly moistened saline gauze in sterile watertight container or plastic bag on ice. **DO NOT FREEZE.** Partial Amputation: Apply saline moistened gauze to wound and cover with bulky sterile dressing. Splint injured part. Elevate extremity.

TRAUMA: SPINAL INJURY

General Principle:

Remember: not only does the pt with a significant head injury have a spinal injury until proven otherwise; so does the pt who dove into the water and is unconscious, or who fell greater than 15ft. (8ft. for a child), has been in any significant deceleration type accident, has been shot in the body or neck, or has been struck by lightning. Position/mechanism means C-spine injury until proven otherwise.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Note position in which pt is found and document. Some positions indicative of spinal injury: forearms flexed to chest with hands half closed, stick 'em up position, etc.
2. Assess for motor or sensory deficits or parasthesias in extremities.
3. Vital signs: hypotension in warm flushed pt and use of abdominal muscles for breathing may both be indicative of spinal injury.
4. Examine spine for deformities.
5. Note level of sensory deficit on pt if applicable. T-10 is level of umbilicus, etc.
6. Note presence of priapism in male patients.

TRAUMA: NEAR DROWNING - ADULT

General Principles:

All near drowning patients must be transported to a medical receiving facility-pulmonary edema may be delayed for several hours. If a patient refuses, document your explanation of the consequences and have witnesses sign the form.

Two factors must be considered concomitantly with drowning. They are: potential for C-spine injury, and the likelihood of hypothermia. Remember that patients have survived complete submersion for 45 minutes in cold water.

SPECIAL GENERAL ASSESSMENT CONSIDERATIONS

1. Safety: Do not enter water to rescue flailing victim unless you are trained to do so. Throw a rope!
2. Mechanism of injury: Consider water temperature, and potential for C-spine injury or medical cause for drowning, i.e., is the patient a good swimmer found in shallow water? Has the patient had a medically caused loss of consciousness leading to the event? Alcohol is involved in 50% of adult drowning.
3. How long was the patient submerged?
4. Level of consciousness: Is patient alert and oriented to time, place, person? Semiconscious? Combative? Comatose?
5. A.B.C.'s: Assess lungs for fluid. Protect and maintain airway.
6. Vital signs: Include core temperature. Maintain body temperature if hypothermic, discuss rewarming with medical control.

POISONING/OVERDOSE - GENERAL

There are only a small number of safe antidotes to poisoning. Most poisonings require good supportive measures and removal of the substance from the victim's body by brushing, flushing eyes and body with H₂O or N.S. for 20 minutes, and prevention of absorption via use of activated charcoal. Poison treatment, especially antidotal treatment, should be initiated under the advice of medical control or of ones -1.Nt and mjjuryuss Td(

pdical

3. Neurological status.

SPECIFIC ASSESSMENT:

1. Breath odor?
2. Vomitus? Take sample to hospital if possible.
3. Type of ingestion: What? When? How much? Bring all containers to hospital.
4. Action taken by bystanders? Antidote given?
5. Patient medical history?

HEAT EXHAUSTION

DIFFERENTIAL FEATURES:

1. Cause: excessive loss of water and/or salt through sweating, or poor intake.
2. Findings:
 - a) Headache, disorientation, weakness, faintness, nausea, vomiting. (CNS changes are minor)
 - b) Skin may be PALE, COOL, CLAMMY.
 - c) Body temperature is NORMAL. (Or slightly elevated)-Check body temperature.
 - d) Signs of mild hypovolemia.

HEAT STROKE

DIFFERENTIAL FEATURES

1. Cause - Inability of body to release heat.
2. Findings:
 - a) History of heat exhaustion.
 - b) Altered level of consciousness - delirium to coma.
 - c) Temperature of 105 degrees or greater.
 - d) Skin signs variable - may be dry or moist.
 - e) Pt may or may not be volume depleted.

HYPOTHERMIA

General Considerations

Although typically a result of acute exposure, may occur in elderly in prolonged situations. Must always suspect in situations where it's potential exists. Simplest approach is to categorize patients as mild or severe using a core temperature of 90 degrees F. as the division. Patients with

core temperature >90 degrees F. can be safely rewarmed by any method where as patients with core temperature <90 degrees F., because of increased myocardial irritability, must be warmed more cautiously to avoid lethal cardiac dysrhythmia's.

Assessment issues

1. May appear "dead". One must assess for pulse and respirations for a full minute before declaring their absence.
2. Any "signs of life" suggest organized cardiac activity.
3. Core temperature can only be evaluated using a hypothermia thermometer via the rectal route.
4. Gentle handling is the absolute rule.
5. Always consider associated causes of Altered level of consciousness i.e. head trauma, hypoglycemia, CO, OD.
Careful assessment for 30-45 seconds for pulse/respirations.

OBSTETRIC GUIDELINES

The normal process of pregnancy may be altered on occasion by either underlying medical problems e.g., diabetes and heart disease, complications arising from the pregnancy itself, or poor understanding of the labor and delivery process by mother or support personnel.

Assume that a female of childbearing age may be pregnant. Remember airway, breathing, and circulation. Always anticipate the potential for excessive bleeding.

Remember a third trimester uterus can compress the inferior vena cava when patient is supine. This can result in decreased cardiac output and hypotension in the mother with severe consequences to the fetus secondary to decreased blood flow. These patients will need to be transported positioned left lateral recumbent or via some means of keeping the uterus off the inferior vena cava.

HISTORICAL ASSESSMENT

PHYSICIAN'S NAME:

Obstetrician or family doctor.

HISTORY OF PREGNANCY:

Due date or last menstrual period and any problems such as swelling of the face or extremities, pain, bleeding, etc.

MOTHER'S OBSTETRICAL HISTORY:

Number of children and pregnancies (para and gravida), any problems with past pregnancies.

MOTHER'S MEDICAL HISTORY:

Medication, allergies, medical problems (e.g. diabetes, AIDS, herpes, kidneys), drug or alcohol abuse?

CURRENT SITUATION:

Have the membranes ruptured? If yes, what tinge, color, and odor of fluid? Contractions: frequency, and duration? Remember that contractions are measured from the beginning of one contraction until the beginning of the next.

PHYSICAL ASSESSMENT

1. A.B.C.'s.
2. Vital Signs: Include cardiopulmonary status.
3. Neurologic status of mother.
4. Abdomen: size of uterus, height of fundus, time contractions.
5. Genitalia: Bleeding? Protruding tissue? Draining fluid? Crowning? Remember to provide for the pt.'s privacy if necessary.

TRANSPORT DECISIONS

Remember to ask how many babies she has had before. The average labor is 14 hours for first delivery. If transporting a woman in labor be calm and reassuring. Instruct mother to take slow deep breaths during the contraction. Instruct mother to "pant breathe" if she feels the urge to push.

TRANSPORT IMMEDIATELY

1. First pregnancy if delivery not imminent and second or later pregnancy with contractions measured more than two minutes apart.
2. Mothers with previous Caesarian section.
3. If twins or multiple births are likely.
4. If there is abnormal vaginal bleeding.
5. If there is breech presentation.

PREPARE FOR IMMEDIATE DELIVERY IF:

1. Contractions are less than two minutes apart.
2. Perineal bulge obvious and scalp becomes visible (crowning).

DELIVERY: Patch prior to delivery if possible.

**COMPLICATIONS OF DELIVERY
ABNORMAL PRESENTATIONS
E.M.T. - B**

TRANSVERSE OR FOOTING PRESENTATION: will not deliver

Transport: have mother pant to avoid pushing.

BUTTOCKS

1. Prepare for delivery. If close to hospital, transport may be best. If delivery occurs, support infant body slightly higher than horizontal while being careful not to injure the neck.
2. If head does not deliver in 3 minutes (avoid explosive delivery), insert gloved fingers in "V" shape between the infant's face and vaginal wall to provide an airway.
3. Slip oxygen at 6 LPM between fingers to increase oxygen delivery to neonate.
4. Rapid transport.

NUCHAL CORD

Attempt to slip the cord over the infant's head. If unable, clamp X 2 and cut between.

PROLAPSED CORD

1. If the cord is visible before delivery, place mother in knee chest position.
2. Do not occlude cord or attempt to replace.
3. Deliver 100% oxygen.
4. Rapid transport.

COMPLICATIONS OF PREGNANCY

ELEVATED BLOOD PRESSURE: (Diastolic > 80 or an increase in the diastolic pressure of 20 mm Hg.)

Assess for peripheral or facial edema.

Anticipate seizure activity - protect patient.

RUPTURE OF MEMBRANES

Assessment Considerations

1. Note time, color, and odor of fluid.
2. Prolapsed cord may occur
3. Position pt in Trendelenburg, or in L lat Recumbent.

FETAL DISTRESS: Meconium staining.

TREATMENT: E.M.T.

1. Oxygen as needed.
2. Position in L lat Recumbent.
3. Reassess- if no improvement (normal = 120-160 BPM) position on L side Trendelenburg. Recheck pulse.

VAGINAL BLEEDING - SHOCK

Late Pregnancy >20 weeks

E.M.T.

Same as early pregnancy, plus:

1. Position pt in L lat Recumbent.
2. Assess fetal status-(fetal movement).

Remember that predicted transport time is an essential factor in decisions regarding treatment needed. The patient who is 5 minutes from the hospital may need little more than rapid transport, whereas the patient who is an hour from the hospital may need ALS interventions.

TRAUMA IN THE PREGNANT PATIENT

Be aware that the pregnant patient who is traumatized is a case of two patients at risk. High flow oxygen and supportive care are the treatments of choice. Rapid transport is critical.

Normal physiological alterations in the pregnant patient include:

- * Pulse rate is 10-15 beats/min faster (should not exceed 100).
- * BP is 10-15 mm Hg lower with widened pulse pressure.
- * Mother has 20-45% greater blood volume.
- * 10-20% more oxygen demand in late pregnancy.

The pregnant patient may not tolerate laying on her back. The fetus can press against the inferior vena cava and produce hypotension from decreased blood return to the heart. Patients of gestation >20 weeks should be positioned to avoid uterine pressure on the vena cava (i.e. L lat Recumbent or wedge under the right side of the board and the uterus pushed to the left).

NEONATAL RESUSCITATION

General Principles

Most newborns do well. Cleari

PEDIATRIC/NEONATAL

GENERAL PRINCIPLES

Primary cardiac arrest in young children is uncommon. Establishment and maintenance of a patent airway and maintenance of adequate ventilation are the most important components of BLS.

1. AIRWAY

- A. The airway in the infant or child is much smaller than that of the adult. In children younger than 10yrs., the narrowest portion of the airway is below the cords, at the cricoid cartilage.
- B. If the child is somnolent or unconscious, the airway may become obstructed by a combination of neck flexion, relaxation of the jaw, posterior displacement of the tongue, and collapse of the hypopharynx.

2. BREATHING

Assess use of accessory muscles, rate, effort, lung sounds (inspiratory vs. expiratory). Use pulse oximetry.

3. CIRCULATION

Proper size B/P cuff is $\frac{2}{3}$ the width of the upper arm.

4. TEMPERATURE

Maintenance is a critical issue.

5. GLUCOSE

Small infants and ill children have limited stores. Monitor in all children who fail to respond to standard resuscitation measures.

6. LOC

Difficult to assess. (See Pediatric Glasgow Coma Scale)

CROUP

Croup (laryngotracheobronchitis) is a viral infection at the upper airway that causes a child to have a metallic barking cough and stridor. Illness usually is one with a gradual onset and becomes worse at night.

EPIGLOTTITIS

A bacterial infection of the epiglottis which may swell and completely obstruct the airway. It causes pain on swallowing, drooling, high fever, muffled voice, (not a barking cough).

Note: Do not upset child. Allow child to remain with parents and assume position of comfort. Transport ASAP.

SUSPICION OF CHILD ABUSE

Treat pt for specific injuries. It is your responsibility to privately communicate any suspicion or concerns about possible child abuse to the receiving physician. Make a special effort to objectively document any signs, symptoms and interaction between child and parent while in our presence. It is important to document any objective findings.

REACTIVE AIRWAY DISEASE/ASTHMA

Clinically patient presents with respiratory distress and expiratory wheezes, but may not have wheezes if there is poor air exchange.

ANAPHYLAXIS

Clinically hives, difficulty breathing, difficulty swallowing.

SUBMERSION INCIDENT

CAT I - No spontaneous respirations, absent HR, Altered LOC; HR returns with resuscitation; respiratory status may or may not improve.

CAT II - Pt. with spontaneous respirations, HR, History of ALOC.

SEIZURES

Children with first time seizures, seizure with fever, or trauma, should be evaluated by an M.D. and should be transported. Children with a history of chronic/recurrent seizures and who are alert and stable may not have to be transported, if the parents have called their private M.D. and have